

**REMARKS**

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 2-3, 5-7, 17-18, 22, 24-29 and 31 were previously cancelled. Claims 1, 13, 16, 19, 21, 30 and 35 are amended. Support for the claim amendments can be found in paragraph [0060] of the Specification. No new matter has been added by way of these amendments. With the entry of the claim amendments as set forth above, Claims 1, 4, 8-16, 19-21, 23, 30, 32-36, and 38-44 are pending in this application.

I. **Rejection of Claims 1, 4, 8-10, 13-16, 19, 21, 23, 30, 32 and 33**  
**Under 35 U.S.C. § 103**

Claims 1, 4, 8-10, 13-16, 19, 21, 23, 30, 32, and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,706,111 to Morales, *et al.* (hereinafter “Morales”) in view of “A Low-Cost WDM Source with ASE Injected Fabry-Perot Semiconductor Laser,” IEEE Photonics Technology Letters, Vol. 12, No. 8, August 2000, pages 1067- 1069, by Kim, *et al.* (hereinafter “Kim”) and “Semiconductor Optical Amplifier-Based All-Optical Gates for High-Speed Optical Processing,” IEEE Journal on Selected Topics in Quantum Electronics, Vol. 6, No. 6, November/December 2000, pages 1428-1435, by Stubkjaer (hereinafter “Stubkjaer”).

Independent Claims 1, 16, and 19 have been amended. For at least the following reasons, Applicants respectfully submit that the amended Claims 1, 16, and 19 are in condition for allowance.

Claim 1 has been amended to recite, in part (emphasis added):

a passive kerb location having an optical router and a plurality of optically pumped sources;  
wherein each optically pumped source is configured to receive injection light from an injection source outside the passive kerb location and to receive the data modulated pumping light from its respective optical network unit, wherein the optically pumped source is configured to form data modulated transmission light at a predefined wavelength range . . . ;  
wherein the passive kerb location does not require a supply of electricity to form the data modulated transmission light.

Claim 16 has been amended to recite, in part, “wherein a supply of electricity to convert the data modulated pumping light is not required at the passive kerb location.” Claim 19 has been amended to recite, in part, “wherein the converting means does not require a supply of electricity to convert the data modulated transmission light.”

On page 7 of the Office Action, the Examiner conceded that “Morales et al does not expressly state that the kerb location is a passive kerb location; wherein each optically pumped source is configured to receive injection light from an injection source outside the passive kerb location and to receive the data modulated pumping light from its respective optical network unit.” The Examiner additionally asserted that “Kim et al teaches a plurality of injection-locked sources (e.g., F-P SLD in Figures 1 and 5) configured to receive injection light from an injection source.” (Office Action Page 8). The Examiner further asserted that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the injection-locked light source [i.e., the Fabry-Perot Semiconductor Laser Diode (F-P SLD)] as taught by Kim et al and Stubkjaer to the access node (or kerb location) of Morales et al so that a passive kerb location can be obtained.” (Office Action Page 9).

As such, the Examiner appears to be saying that a F-P SLD as disclosed in Kim can be used at a passive kerb location to receive injected light and data modulated pumping light and to form a data modulated transmission light. Applicants respectfully disagree. A F-P SLD necessarily requires an electricity supply to function. As such, if a F-P SLD was introduced to a kerb, the kerb would require an electricity supply in order to form the data modulated transmission light. Accordingly, Kim fails to provide an F-P SLD capably of being used as an optically pumped source within a passive kerb location, “wherein the passive kerb location does not require a supply of electricity” as recited in Claim 1.

In addition, Morales and Stubkjaer also fail to disclose an optically pumped source or other similar device configured to “receive injection light from an injection source … receive the data modulated pumping light … [and] form data modulated transmission light” without requiring a supply of electricity. As such, Morales, Kim, and Stubkjaer, alone and in combination, fail to disclose, teach, or suggest at least one element recited in each of Claims 1, 16, and 19.

In the alternative, even if the Examiner was asserting that the F-P SLD of Kim does not have to be included in the kerb but still performs the functionality of receiving the injected light and the data modulated pumping light and forming a data modulated transmission light, then Morales, Kim, and Stubkjaer, alone or in combination, again fail to disclose at least one element recited in each of Claims 1, 16, and 19. Claim 1 recites “a passive kerb location having ... a plurality of optically pumped sources; wherein each optically pumped source is configured to receive injection light from an injection source ... and to receive the data modulated pumping light.” Claims 16 and 19 include similar elements. As such, Claims 1, 16, and 19 require that the entity performing the receiving of the injection light and the data modulated pumping light (i.e., the optically pumped source) necessarily must be included in the passive kerb location. As such, if the F-P SLD is located outside the passive kerb location, Morales, Kim, and Stubkjaer, alone or in combination, necessarily fail to disclose at least one element recited in each of Claims 1, 16, and 19.

For at least these reasons, Applicants respectfully request that the rejection of Claims 1, 16, and 19 under 35 U.S.C. § 103(a) be withdrawn. Accordingly, Applicants also respectfully request that the rejection of Claims 4, 8-15, 20-21, 23, 30, and 32-34, which depend variously from Claims 1, 16, and 19, also be withdrawn.

## **II. Rejection of Claims 11, 12, 20, and 34 under 35 U.S.C. § 103**

On page 18 of the Office Action, Claims 11, 12, 20 and 34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over a combination of four different references, namely Morales in view of Kim, Stubkjaer, and U.S. Patent No. 6,434,175 to Zah (hereinafter “Zah”). Applicants respectfully traverse this rejection.

As discussed above, Morales, Kim, and Stubkjaer, alone or in combination, fail to disclose, teach, or suggest all of the elements of independent Claim 1. Zah fails to cure the deficiencies discussed above with respect to Morales, Kim, and Stubkjaer. This is further evidenced by the fact that Zah was relied upon in the instant Office Action merely to supply elements unique to Claims 11, 12, 20, and 34 (e.g., an external cavity laser). Thus, Claims 11, 12, 20, and 34 are patentable over the cited references for at least the reasons discussed above

with respect to independent Claim 1. Accordingly, Applicants respectfully request withdrawal of the rejection of Claims 11, 12, 20, and 34 under 35 U.S.C. § 103(a).

**III. Allowable Subject Matter**

Applicants thank the Examiner for the allowance of Claims 35, 36, and 38-42. Claims 43 and 44 were objected to as being dependent upon a rejected base Claim 1. By way of this Amendment and Reply, the base Claim 1 has been amended and, as discussed above, is in condition for allowance. As such, Applicants respectfully request allowance of Claims 43 and 44.

It is submitted that each outstanding objection and rejection to the Application has been overcome, and that the Application is in condition for allowance. Applicants respectfully request consideration and allowance of all pending claims.

It should also be noted that although arguments have been presented with respect to certain claims herein, the recited subject matter as well as various other subject matter and/or combinations of subject matter may be patentable for other reasons. Further, the failure to address any statement by the Examiner herein should not be interpreted as acquiescence or agreement with such statement. Applicants expressly reserve the right to set forth additional and/or alternative reasons for patentability and/or allowance with the present Application or in any other future proceeding, and to rebut any statement presented by the Examiner in this or other papers during prosecution of the present Application.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present Application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extension of time is needed for timely acceptance of

papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extension fee to Deposit Account No. 19-0741.

Respectfully submitted,

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